PTO/SB/

1743

PTO/SB/17 (10-03)

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)

(\$) 180

		Complete if Known	
	Application Number	09/687,401	
Filing Date	October 13, 2000		
	First Named Inventor	Ian David Manger	
	Examiner Name	1743	
	Art Unit	Soderquist, Arlen	
	Attorney Docket No.	020174-002300US	

METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)					
Check Credit Card Money Order Other None	3. ADD	ITIONAL I	FEES			
Deposit Account:	Large	Entity	Small	Entity		
Deposit Account 20-1430	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
Number 20-1430	1051	130	2051	65	Surcharge - late filing fee or oath	
Deposit	1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
Account Townsend and Townsend and Crew LLP	1053	130	1053	130	Non-English specification	
Name	1812	2,520	1812	2,520	For filing a request for reexamination	
The Director is authorized to: (check all that apply)	1804	920*	1804	920*	Requesting publication of SIR prior to	
Charge fee(s) indicated below Credit any overpayments	1				Examiner action	<b>  </b>
Charge any additional fee(s) or any underpayment of fee(s)	1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.	1251	110	2251	55	Extension for reply within first month	
FEE CALCULATION	1252	420	2252	210	Extension for reply within second month	$\vdash$
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1. BASIC FILING FEE	1253	950	2253	475	Extension for reply within third month	
Large Entity Small Entity	1254	1,480	2254	740	Extension for reply within fourth month	
Fee Fee Fee Fee Description Fee Paid Code (\$) Code (\$)	1255	2,010	2255	1,005	Extension for reply within fifth month	
1001 770 2001 385 Utility filing fee	1401	330	2401	1,000	Notice of Appeal	$\vdash$
1002 340 2002 170 Design filing fee	1402	330	2402	165	Filing a brief in support of an appeal	$\vdash$
1003 530 2003 265 Plant filing fee	1403	290	2403	145	Request for oral hearing	$\vdash$
1004 770 2004 385 Reissue filing fee					Petition to institute a public use	$\vdash$
1005 160 2005 80 Provisional filing fee	1451	1,510	1451	1,510	proceeding	
SUBTOTAL (1) (\$)	1452	110	2452	55	Petition to revive – unavoidable	
(0)	1453	1,330	2453	665	Petition to revive – unintentional	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	1501	1,330	2501	665	Utility issue fee (or reissue)	
Fee from	1502	480	2502	240	Design issue fee	
Extra Claims below Fee Paid	1503	640	2503	320	Plant issue fee	
Total Claims -** = X	1460	130	1460	130	Petitions to the Commissioner	
Independent Claims -** = = =	1807	50	1807	50	Petitions related to provisional applications	
Multiple Dependent	1806	180	1806	180	Submission of Information Disclosure Stmt	180
Large Entity Small Entity	8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
Fee Fee Fee Fee Code (\$) Code (\$) Fee Description	1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1202 18 2202 9 Claims in excess of 20 1201 86 2201 43 Independent claims in excess of 3	1810	770	2810	385	For each additional invention to be	<del>                                     </del>
1203 290 2203 145 Multiple dependent claim, if not paid	1.0,0	***		000	examined (37 CFR § 1.129(b))	
1204 86 2204 43 ** Reissue independent claims over original patent	1801	770	2801	385	Request for Continued Examination (RCE)	
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802	900	1802	900	Request for expedited examination of a design application	
SUBTOTAL (2) (\$)	Other fe	ee (specify)	- )			
**or number previously paid, if greater; For Reissues, see above	*Reduc	ed by Basi	c Filing I	Fee Paid	SUBTOTAL (3) (\$)180	

SUBMITTED BY Complete (if applicable)							
Name (Print/Type)	Scott L Ausenhus	Registration No. (Attorney/Agent)	42,271	Telephone	303-571-4000		
Signature	Scott lu	render		Date	6-16-04		

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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

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Application Number	09/687,401
Filing Date	October 13, 2000
First Named Inventor	Ian David Manger
Art Unit	1743
Examiner Name	Soderquist, Arlen
Attornoy Docket No	020174-002300US

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	Incomplete	Application				•				
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or Individu	ıal name	Scott L. Aus			IU CIEW LLF	Reg. No	12 271	1		
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I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.										
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Signature Cu Signature			- W	DILE			Date	6/16/04		

7 8 7004 Commissioner for Patents
P. & Box 1450
Astrandria, VA 22313-1450

Dn JUNE 16, 2004

TOWNSEND and TOWNSEND and CREW\_LLP

By: Nicolel Wartell

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Ian David Manger et al.

Application No.: 09/687,401

Filed: October 13, 2000

For: MICROFLUIDIC-BASED ELECTROSPRAY SOURCE FOR

ANALYTICAL DEVICES

Examiner: Soderquist, Arlen

Art Unit: 1743

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37

CFR §1.97 and §1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

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Ian David Manger et al. Application No.: 09/687,401

Page 2

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Scott L. Ausenhus Reg. No. 42,271

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834

Tel: 303-571-4000 Fax: 303-571-4321

SLA:nmb

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

Complete if Known					
Application Number	09/687,401				
Filing Date	October 13, 2000				
First Named Inventor	Manger, lan David				
Art Unit	1743				
Examiner Name	Soderquist, Arlen				
Attorney Docket Number	020174-002300US				

U.S. PATENT DOCUMENTS+						
Examiner Initials*	Cite No.1	Document Number  Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of P Applicant of Ci	atentee or ited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant
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	A10	US-5,088,515	02-18-1992		nen	
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-	A12	US-5,126,115	06-30-1992	Fujita		
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	A17	US-5,265,327	11-30-1993	Faris		
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	A40	US-6,007,309	12-28-1999	Har	tley	
	A41	US-6,043,080	03-28-2000	Lipshu	tz et al.	
Examiner Signature				Date Considered		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 

Applicant's unique citation designation number (optional). 
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For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 
Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 
Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-03)

Substitute for form 1449A/PTO Complete if Known **Application Number** 09/687,401 INFORMATION DISCLOSURE Filing Date October 13, 2000 STATEMENT BY APPLICANT First Named Inventor Manger, Ian David Art Unit 1743 Soderquist, Arlen (use as many sheets as necessary) Examiner Name 020174-002300US

**Attorney Docket Number** 

of

Sheet

	U.S. PATENT DOCUMENTS+								
		Document Number							
Examiner Initials*	Cite No.1	Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear				
	A42	US-6,123,769	09-26-2000	Sanjoh					
	A43	US-6,155,282	12-05-2000	Zachary et al.					
	A44	US-6,174,365 B1	01-16-2001	Sanjoh					
	A45	US-6,296,673 B1	10-02-2001	Santarsiero et al.					
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	FOREIGN PATENT DOCUMENTS									
Examiner	Cite	Foreign Patent Document			Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant			
Initials*	No. <sup>1</sup>	Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if kn	own)	MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T⁵	
	B1	EPO	EP 0 592 0	94 A	2	04-13-1994				
	B2	EPO	EP 0 703 3	364 A	1	03-27-1996				
	B3	EPO	EP 0 706 0	004 A	2	04-10-1996				
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	B7	EPO	EP 0 999 (	)55 A	2	05-10-2000				
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	B9	GB	2 308 460	P	\	06-25-1997				
	B10	PCT	WO 98/070	069 A	1	02-19-1998				
	B11	PCT	WO 99/170	093 A	1	04-08-1999				
	B12	PCT	WO 00/603	345 A	1	10-12-2000				
	B13	PCT	WO 02/304	486 A	2	04-18-2002				

Examiner Signature	Date Considered	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 

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\*For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 

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ubstitute for form 1449B/PTO **INFORMATION DISCLOSURE** STATEMENT BY APPLICANT (use as many sheets as necessary)

of

Sheet

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Application Number	09/687,401			
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Examiner Name	Soderquist, Arlen			
Attorney Docket Number	020174-002300US			

		NON PATENT LITERATURE DOCUMENTS
Examiner Initials *	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	C1	AHN et al., "Fluid Micropumps Based on Rotary Magnetic Actuators," Proceedings of 1995 IEEE Micro Electro Mechanical Systems Workshop (MEMS '95), held in Amsterdam, Netherlands on 1/29-2/2/1995, pgs. 408-412.
	C2	BENARD et al., "A Titanium-Nickel Shape-Memory Alloy Actuated Micropump," Proceedings of Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, II., 6/16-19/1997, 1:361-364 (1997).
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Examiner Signature		Date

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Filing Date	October 13, 2000			
First Named Inventor	Manger, Ian David			
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Examiner Name	Soderquist, Arlen			
Attorney Docket Number	020174-002300US			

	1	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т
	C15	GASS et al., "Integrated flow-regulated silicon micropump," Sensors and Actuators A Physical, 1994, p. 335-338, Vol. 43.	
	C16	GERLACH, T., "Pumping Gases by a Silicon Micro Pump with Dynamic Passive Valves," Proceedings of Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, held in Chicago, II., 6/16-19/1997, pp. 357-360, Vol. 1.	
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	C21	HOPFGARTNER, GERARD et al. "Exact Mass Measurement of Product Ions for the Structural Elucidation of Drug Metabolites with a Tandem Quadrupole Orthogonal-Acceleration Time-of-Flight Mass Spectrometer" <i>Journal of The American Society for Mass Spectrometry</i> , Dec. 1999, pp. 1305-1314, Vol. 10.	
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	C23	HOSOKAWA et al., "Handling of Picoliter Liquid Samples in a Poly(dimethylsiloxane)-Based Microfluidic Device," Anal. Chem., 1999, 71(20):4781-4785	
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	C25	JACOBSON et al., "High-speed separations on a microchip," Anal. Chem., 1994, 66(7):1114-1118.	
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	C27	JERMAN, H., "Electrically-Activated, Normally-Closed Diaphragm Valves," Proceedings of Transducers '91, 1991 International Conference on Solid-State Sensors and Actuators, pages 1045-1048 (1991).	

Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

Sheet

Substitute for form 1449B/PTO

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Complete if Known			
Application Number	09/687,401		
Filing Date	October 13, 2000		
First Named Inventor	Manger, Ian David		
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		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
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	C35	LUCY et al., "Characterization of the Cationic Surfactant Induced Reversal of Electroosmotic Flow in Capillary Electrophoresis," Anal. Chem., 1996, pp. 300-305, Vol. 68.	
	C36	MALUF, N., <u>An Introduction to Microelectromechanical Systems Engineering</u> , Dec. 1999, pages 42-45, Artech House Publishers, Boston London.	
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Examiner Date Signature Considered

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#### **INFORMATION DISCLOSURE** STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known			
Application Number	09/687,401		
Filing Date	October 13, 2000		
First Named Inventor	Manger, lan David		
Art Unit	1743		
Examiner Name	Soderquist, Arlen		
Attorney Docket Number	020174-002300US		

	NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²		
	C43	QIN et al., "Elastomeric Light Valves**", Adv. Mater., 1997, pp.407-410, Vol. 9, No. 5.			
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Signature	Considered	

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NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the article			
	C57	VIEIDER et al.; "A Pneumatically Actuated Micro Valve with a Silicon Rubber Membrane for Integration with Fluid Handling Systems", Proceedings of Transducers '95, the 8th International Conference on Solid-State Sensors and Actuators and Eurosensors IX, held in Stockholm, Sweden on 6/25-29/95, 1995, pp. 284-286, Stockholm, Sweden.	i	
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	C67	Zengerle et al., "A Micro Membrane Pump with Electrostatic Actuation," 1992 IEEE Conf. on Micro Electro Mechanical Systems, held 2/4-7/92 in Travemunde Germany, pgs. 19-24.		
	C68	Zengerle et al., "Performance Simulation of Microminiaturized Membrane Pumps," from 7th International Conference on Solid-State Sensors and Actuators held 6/7-10/93 in Yokohama Japan, pages 106-109.		

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